

### Remarks

The foregoing amendments and remarks are responsive to the Office Action mailed on 10/01/04. Claims 11-25 are pending in this application. Claims 1-10 have been previously withdrawn in response to a restriction requirement by the Examiner. Claims 11-19 are original claims and claims 20-25 have been added by previous amendment. Claim 11 has been amended to include analyzing the aerogel absorbate by: observing a color change in the aerogel absorbate and detecting the airborne material by GC/ MS (i.e., a Gas chromatography/mass spectrometry). Support for the amendment of claim 11 can be found inter alia, in Applicants' original specification and original claims. No new matter has been presented.

Accordingly, claims 11-25 are presented for examination and are believed to be in condition for allowance in light of the amendments and arguments infra. Accompanying this communication is a petition to extend the prosecution for two months and the appropriate fees.

### Brief Discussion of the Invention

The present invention comprises producing an aerogel having a desired chemically specific adsorbing composition that can target specific gases or vapors of interest, crushing the thus produced aerogel, exposing the crushed aerogel to an environment for collecting and removing a sample, and thereafter analyzing the collected sample by: observing a color change in the aerogel absorbate and detecting the airborne material by GC/ MS (i.e., Gas chromatography/mass spectrometry).

### Discussion of the Office Action

In the Office Action of October 01, 2004, the Examiner rejected claims (11-25) under 35 U.S.C. §103(a) as being unpatentable under Daitch et al. (US 6,447,991 B1) in view of Sigman et al. (USPN 6,645,908).

### Rejection of claims 11-25 under 35 U.S.C. §103(a)

As set forth above, claims 11-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable under Daitch et al. (US 6,447,991 B1) in view of Sigman et al. (USPN 6,645,908). Specifically, the Examiner states that “Daitch **does not** also **specify** that the aerogel is analyzed by **observing a color change** in the aerogel absorbate or detecting the airborne material by GC/MS. “The examiner also states (on page 4) “Sigman teaches a sol-gel derived sorbant analyzing method that comprises analyzing a sol-gel sorbent by gas chromatography/mass spectrometer (col. 9, line 61, col. 13, line 14). The Examiner also states, “[i]t would have been obvious to one having ordinary skill in the art to modify Daitch to detect the airborne material by GC/MS because it is known in the art of analyte detection that GC/MS methods are routinely used to detect and quantify unknown analytes in a sample.” Applicants must traverse such a rejection because Daitch et al. alone or in combination with Sigman et al. **does not** teach or suggest every aspect of Applicant’s amended claimed invention, i.e., analyzing the aerogel absorbate by: “observing a color change in the aerogel absorbate **and** detecting the airborne material by GC/ MS.”

Under MPEP §2142, to establish a *prima facie* case of obviousness,

The prior art reference (or references when combined) must teach or suggest all the claim limitations.

Such a requirement under MPEP §2142 is also stated under MPEP §2143.03:

“To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” *In re Royka*, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974).

Applicants’ amended independent claim 11 is as follows:

26. A method for environmental and industrial sampling of airborne target material, comprising: providing a quantity of an aerogel absorbate, crushing the aerogel absorbate, exposing the crushed aerogel absorbate to an airborne material for collecting a sample thereof, removing the collected sample, and analyzing the collected sample by:

a) observing a color change in the aerogel absorbate; and

b) detecting the airborne material by GC/ MS.

As shown above by the underlined portion, amended claim 11 includes analyzing the collected sample by: observing a color change in the aerogel absorbate and detecting the airborne material by GC/ MS (i.e., a Gas chromatography/mass spectrometry). The Examiner specifies that Sigman et al. teaches GC/MS. However, Applicants respectfully submit that Sigman et al. alone or in combination with Daitch et al. is silent as to analyzing the collected sample by observing a color change in the aerogel absorbate and GC/MS, i.e., Daitch et al. alone or in

combination with Sigman et al. **does not** teach or suggest every aspect of Applicant's amended claimed invention .

Accordingly, in light of the amendment, the rejection of independent claim 11 under 35 U.S.C. §103(a) is believed overcome and is requested to be withdrawn.

Regarding dependent claims 12-25, such claims either directly or indirectly depend from independent claim 11, and thus contain the amended limitations of claim 11.

Under MPEP §2143.01, "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Accordingly, in light of the arguments above regarding the rejection of independent claim 11, the rejection of dependent claims 12-25 under 35 U.S.C. §103(a), which depend directly or indirectly from claim 11, is also deemed improper as mandated under MPEP §2143.01, and is respectfully requested to be withdrawn.

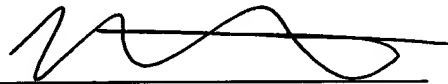
### Conclusion

The undersigned respectfully submits that, in view of Applicants' arguments and amendments, the rejection of the claims under 37 CFR 103(a) raised in the Office Action dated October 01, 2004 have been fully addressed and overcome and the present application is believed to be in condition for allowance.

It is respectfully requested that this application be reconsidered, that pending claims **11-25** be allowed, and that this case be passed to issue. In the event that the Examiner finds any remaining impediment to the prompt allowance of these claims that can be clarified with a telephone conference, she is respectfully requested to initiate the same with the undersigned at (925) 422-3682.

Respectfully submitted,

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